Claims

1.   A digital document processing system, comprising

an adaptable front end for receiving an input stream representing source data in one of

a plurality of predetermined data formats and containing information representative of a

5   visual image,

interpreting module for interpreting said input stream to generate an internal

representation of said visual display, and

a rendering engine for processing said internal representation and for generating an

output data stream suitable for driving an output device to present the visual image.

10

2.   A system according to claim 1, wherein said adaptable front end includes a process

for monitoring a data stream and for identifying files in any of the formats from the set

consisting of HTML, XML, PDF, DOC, RM, VRML and SGML.

3.   A system according to claim 1, wherein said source data defines the content and

15   structure of a digital document, and wherein said internal representation data describes said

structure in terms of generic objects defining a plurality of data types and parameters defining

properties of specific instances of generic objects, separately from said content.

4.   A system according to claim 1, further including a library of generic objects, said

internal representation data being based on the content of said library.

20 5.   A system according to claim 1, including a parsing module adapted to generate an

object and parameter based representation of the image.

6.   A system according to claim 1, further including a shape processing module adapted

to receive an object and parameter based representation of the visual image and to convert

said object and parameter based representation into an output data format suitable for driving

25 a particular output device.

7.   A system according to claim 5, wherein said shape processing module processes said

objects on the basis of a boundary box defining the boundary of an object, a shape defining

the actual shape of the object bounded by the boundary box, the data content of the object and the transparency of the object.

8.   A system according to claim 5, wherein said shape processor is adapted to apply grey-scale anti-aliasing to the edges of said objects.

5   9.   A system according to claim 5, wherein said shape processing module has a pipeline architecture.

10.   A system according to claim 1, wherein said internal representation includes object parameters having dimensional, physical and temporal parameters.

11.   A system according to claim 1, further including a chrominance/luminance-based
10   colour model to describe colour data.

12.   A graphical user interface for a data processing system in which interactive visual displays employed by the user interface are generated by means of a digital document processing system as claimed in Claim 1.

15